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Amendments to the Claims.

1. (currently amended) A recombinant expression vector comprising a heterologous promoter operably linked to an expressed polynucleotide which naturally encodes an Afc1 polypeptide and hybridizes under stringent conditions with a nucleic acid having the sequence of human EST z43273 (SEQ ID NO:5), wherein said polypeptide mediates the proteolytic removal of an AAX tripeptide from a prenylated CAAX protein.

2-4 (canceled)

5. (currently amended) A recombinant expression vector comprising a promoter operably linked to an expressed polynucleotide which naturally encodes an Rce1 polypeptide and hybridizes under stringent conditions with a nucleic acid having the sequence of human EST w14344 (SEQ ID NO:6), wherein said polypeptide mediates the proteolytic removal of an AAX tripeptide from a prenylated CAAX protein.

6-8. (canceled)

9. (original) A recombinant cell transduced with the vector of claim 1.

10. (canceled)

11. (original) A recombinant cell transduced with the vector of claim 5.

12-14. (canceled)

15. (original) A method of identifying a compound which inhibits the proteolytic removal of an AAX tripeptide of a CAAX protein in a cell, the method comprising steps:

contacting a sample comprising a recombinant cell according to claim 9, or lysate thereof with a test compound; and

measuring activity or expression of the Afc1p or Rce1p expressed by the cell, wherein compound-dependent inhibition of the activity or expression indicates that the compound inhibits

the proteolytic removal of the AAX tripeptide.

16. (canceled)

17. (original) A method of identifying a compound which inhibits the proteolytic removal of an AAX tripeptide of a CAAX protein in a cell, the method comprising steps:

contacting a sample comprising a recombinant cell according to claim 11, or lysate thereof with a test compound; and

measuring activity or expression of the Afc1p or Rce1p expressed by the cell, wherein compound-dependent inhibition of the activity or expression indicates that the compound inhibits the proteolytic removal of the AAX tripeptide.

18-20. (canceled)

21. (new) The vector of claim 1 wherein the stringent conditions are: hybridization in 50% formamide with 1 mg of heparin per 50 mL at 42°C carried out overnight, followed by wash with 0.2x SSC (saline-sodium citrate) at 65°C for 15 minutes.

22. (new) The vector of claim 5 wherein the stringent conditions are: hybridization in 50% formamide with 1 mg of heparin per 50 mL at 42°C carried out overnight, followed by wash with 0.2x SSC (saline-sodium citrate) at 65°C for 15 minutes.

23. (new) The cell of claim 9 wherein the stringent conditions are: hybridization in 50% formamide with 1 mg of heparin per 50 mL at 42°C carried out overnight, followed by wash with 0.2x SSC (saline-sodium citrate) at 65°C for 15 minutes.

24. (new) The cell of claim 11 wherein the stringent conditions are: hybridization in 50% formamide with 1 mg of heparin per 50 mL at 42°C carried out overnight, followed by wash with 0.2x SSC (saline-sodium citrate) at 65°C for 15 minutes.

25. (new- withdrawn) The method of claim 15 wherein the stringent conditions are: hybridization in 50% formamide with 1 mg of heparin per 50 mL at 42°C carried out overnight, followed by wash with 0.2x SSC (saline-sodium citrate) at 65°C for 15 minutes.

26. (new- withdrawn) The method of claim 17 wherein the stringent conditions are: hybridization in 50% formamide with 1 mg of heparin per 50 mL at 42°C carried out overnight, followed by wash with 0.2x SSC (saline-sodium citrate) at 65°C for 15 minutes.

27. (new) The vector of claim 1 wherein the polynucleotide comprises SEQ ID NO:5.

28. (new) The vector of claim 5 wherein the polynucleotide comprises SEQ ID NO:6.

29. (new) The cell of claim 9 wherein the polynucleotide comprises SEQ ID NO:5.

30. (new) The cell of claim 11 wherein the polynucleotide comprises SEQ ID NO:6.

31. (new - withdrawn) The method of claim 15 wherein the polynucleotide comprises SEQ ID NO:5.

32. (new - withdrawn) The method of claim 17 wherein the polynucleotide comprises SEQ ID NO:6.